

scores. **CONCLUSIONS:** The K-means CA method appeared optimal in healthcare claims data with highly skewed cost information when taking into account both change of cost patterns and sample size in smallest cluster.

#### PRM130 INCLUSION OF MULTIPLE STUDIES IN MATCHING ADJUSTED INDIRECT COMPARISONS (MAIC)

Belger M<sup>1</sup>, Brnabic A<sup>2</sup>, Kadziola Z<sup>3</sup>, Petto H<sup>3</sup>, Faries D<sup>4</sup>

<sup>1</sup>Eli Lilly and Company (Lilly UK), Surrey, UK, <sup>2</sup>Eli Lilly, Sydney, Australia, <sup>3</sup>Eli Lilly Regional Operations GmbH, Vienna, Austria, <sup>4</sup>Eli Lilly, Indianapolis, IN, USA

**OBJECTIVES:** Signorovitch (2010) describes MAIC that focuses on matching one study with individual patient data (IPD) to the covariates in one study with aggregated data (AGR). However in most scenarios there are likely to be multiple studies with IPD and AGR that need to be included in the Indirect Comparison. In addition it may be necessary to extend the network of treatments to include more than the two treatments with a single comparator. **METHODS:** We propose a number of potential solutions for including multiple studies and multiple treatments in the MAIC and assess these using simulations with the weighting methods proposed by Signorovitch (2010) as well as with Entropy Balancing Hainmueller (2012). **RESULTS:** When multiple IPD studies exist then MAIC can be conducted if you consider a) Pooling IPD studies, into one large study and match against the AGR study or b) matching each IPD study against the AGR study. For multiple AGR studies then the IPD data can be matched against a) just one AGR study, b) the average patient characteristics from the AGR studies, c) the average mean and variances from the AGR studies or d) the distribution of patient characteristics using MCMC from the AGR studies. To apply a MAIC in Networks involving multiple studies the choice of study to match on could be an issue so it is important that the assumptions surrounding the NMA are tested, and only if there is no evidence to suggest inconsistency and heterogeneity within the Network, should IPD studies be added to the Network via an MAIC. **CONCLUSIONS:** MAIC can be applied in scenarios where you have multiple studies and treatments if the existing Network satisfies the assumptions around heterogeneity and inconsistency required when performing Network Meta-Analysis.

#### PRM131 CLASSIFICATION TREE ANALYSIS OF THE LIKELIHOOD OF CLOPIDOGREL TREATMENT IN A COHORT OF PATIENTS WITH SYMPTOMATIC PERIPHERAL ARTERY DISEASE

Reed Chase M<sup>1</sup>, Friedman H<sup>2</sup>, Navaratnam P<sup>2</sup>, Heithoff K<sup>1</sup>, Simpson Jr R<sup>3</sup>

<sup>1</sup>Merck & Co., Kenilworth, NJ, USA, <sup>2</sup>DataMed Solutions LLC, New York City, NY, USA, <sup>3</sup>University of North Carolina, Chapel Hill, NC, USA

**OBJECTIVES:** We evaluated whether treatment initiation of clopidogrel among symptomatic peripheral artery disease (SPAD) was impacted by post-stenting prevention of thromboembolic complications in patients with comorbid coronary artery disease (CAD), in spite of primary use as secondary prevention in SPAD. **METHODS:** Patient records from Jan 1, 2006 through June 30, 2010 were extracted from the MarketScan Commercial Claims and Encounters database. Patients met inclusion criteria if they had a record of SPAD but were excluded if they had stroke/TIA or contraindications to anti-platelet therapy. Claims identified 1 year prior to and 3 years post-earliest record of SPAD were included in the analysis. Clopidogrel initiators  $\pm$  90 days from the index date were identified. A classification tree model was created with the outcome being the likelihood of treatment initiation with clopidogrel controlling for select baseline covariates. The model used the misclassification criterion, required a minimum of 50 observations/leaf and a maximum of 2 branches/ node. As a comparison, a stepwise logistic regression model was also constructed. **RESULTS:** Of 16,377 SPAD patients, 5,164 (32%) initiated clopidogrel treatment. The output model had 18 leaves, ranging from 0.3%–53.4% of the population. The most important variables were PAD outpatient payment (importance score (IS) = 1), CAD [IS=0.89], pre-index percutaneous coronary intervention (PCI) [IS=0.46] and pre-index statin use (IS=0.33). Similar results were obtained with the logistic regression model. The highest probability leaf for clopidogrel initiation (74.6%; 2.5% of the population) and included patients with low PAD outpatient payment (<\$145), comorbid CAD, pre-index PCI and  $\geq$  1 pre-index all-cause inpatient admission. **CONCLUSIONS:** Our results show clopidogrel use in SPAD patients may be impacted by the presence of comorbid CAD and/or prior PCI use. When evaluating the effectiveness of clopidogrel for SPAD-related outcomes, comorbid CAD and/or PCI use should be considered as confounding variables.

#### RESEARCH ON METHODS – Study Design

#### PRM132 HOW MANY SUBJECTS ARE ENOUGH FOR SYMPTOM-FOCUSED CONCEPT ELICITATION STUDIES? A RETROSPECTIVE ANALYSIS OF SATURATION ACROSS TWENTY-SIX STUDIES

Lamoureux RE, Shields A, Stokes J, Yaworsky A, Galipeau N  
Adelphi Values USA, Boston, MA, USA

**OBJECTIVES:** As an indicator that concept elicitation study results are robust and trustworthy, the value of demonstrating saturation (i.e., the point at which no new information is gained from conducting additional interviews) in qualitative research is widely accepted. Nevertheless, there is little empirical evidence to guide researchers in making a priori decisions regarding sample size in such studies. This study sought to assist in providing such evidence. **METHODS:** A retrospective analysis of saturation results from n=26 concept elicitation studies completed between 2006 and 2013 was conducted. Studies included a total of n=633 subjects (57% female), representing a spectrum of therapeutic categories, ages (M=47.5 [SD] 17.2 years), ethnicities (33% non-Caucasian), and education status (25.8% with high school degree or less). The vast majority of the interviews were conducted in the US (99.2%) across 25 states. Study sample sizes ranged from 10–43 (M=20.9 [SD] 8.1). Across all stud-

ies, 432 symptom concepts (range 7–33, M=16.6 [SD] 6.4) were elicited. Each sample was divided into quartiles based on the chronology of individual interviews. Study results (i.e., patient reports) were then reviewed to determine the interview number and quartile in which each concept was first elicited. **RESULTS:** Analysis showed that 84.0% (n=363), 92.4% (n=399), 97.2% (n=420), and 99.3% (n=429) of all elicited concepts had emerged by the tenth, fifteenth, twentieth, and twenty-fifth interview, respectively. Less than 1% (n=3) of concepts emerged after the 25th interview in samples with >25 subjects. **CONCLUSIONS:** While a variety of factors inform sample size decisions in concept elicitation interview studies, this analysis suggests that researchers can reasonably expect to elicit 95% to 100% of the targeted disease-related symptoms-level concepts, and thus achieve saturation, through the conduct of 20 to 25 interviews.

#### PRM133 EXPLORING THE REAL WORLD SETTING OF CHRONIC IDIOPATHIC URTICARIA AND PHYSICIAN ATTITUDES TOWARDS IT IN THE US

Gabriel S<sup>1</sup>, Herrera V<sup>2</sup>, Hoskin B<sup>3</sup>, Anderson P<sup>3</sup>, Karagiannis T<sup>4</sup>

<sup>1</sup>Novartis Pharmaceuticals Corporation, East Hanover, NJ, USA, <sup>2</sup>Novartis Pharmaceuticals, East Hanover, NJ, USA, <sup>3</sup>Adelphi Real World, Macclesfield, MA, USA, <sup>4</sup>Jefferson School of Population Health for Novartis Pharmaceuticals, East Hanover, NJ, USA

**OBJECTIVES:** To describe the methodology of a real-world, cross-sectional survey of Chronic Idiopathic Urticaria (CIU) in the US, outlining collection of patient-level data from both physicians and their patients as well as physician attitudinal data. **METHODS:** The survey, conducted by Adelphi between November 2014 and March 2015, incorporates Physician Interviews, Patient Record Forms (PRFs) completed by physicians, and Patient Self-Completion Forms (PSCs). Physicians provide data regarding current clinical practice, CIU history and progression, triggers, continuous/intermittent symptoms, affected body sites, severity and treatment. Patients provide information regarding their disease experience, sleep quality (Jenkins questionnaire), effects on daily/working life (Work Productivity and Activity Index) and satisfaction with treatment. Physician interviews include number of CIU patients managed, tests used to aid diagnosis, circumstances in which systemic and biologic therapy are used, and criteria for determining severity. Eligible physicians (Allergists and Dermatologists) each provided PRFs for 4 non-refractory and 6 refractory patients. All patients were invited to take part anonymously in the self-completion exercise but this was not mandatory. Ethical approval was obtained. **RESULTS:** The target sample is 100 physicians providing information on approximately 1000 CIU patients. While patient specific results are anticipated to be available from Q2 2015, early physician interview results (n=5) suggest that diagnostic tests performed by up to 80% of specialists include complete blood count, liver tests and anti-thyroglobulin/anti-thyroperoxidase antibody tests. The most important factors in determining CIU severity are frequency of symptomatic period and impact on quality of life. All of the physicians indicate being comfortable prescribing biologics for CIU patients and 4 out of 5 suggest they are suitable for 25–33% of their CIU patients. **CONCLUSIONS:** To date limited data are available on real world experience of CIU and this cross-sectional survey is providing a unique insight into the continuum of care for patients experiencing this distressing condition.

#### PRM134 HTA DECISIONS AND COMPARATOR CHANGES OVER TIME IN RHEUMATOID ARTHRITIS

Sliman RC, Rubinstein ER, Versoza L, Lurie BF, Westbrook L, Sanchez DP, Rubinstein JL, Ho Y

Context Matters, Inc., New York, NY, USA

**OBJECTIVES:** This study examines comparators used for biologic Rheumatoid Arthritis (RA) drugs, both Tumor Necrosis Factor (TNF) drugs and Disease-Modifying, Anti-Rheumatic Drugs (DMARDs), and the decision compared to the European label. The change in comparator categories for RA drugs over time is also assessed. **METHODS:** This research highlights RA Health Technology Assessments (HTAs), published from 2005 – 2014, from NICE, SMC, HIS, HAS, and IQWiG. (The G-BA did not review RA during this time frame.) Comparators were split into two non-mutually-exclusive categories: comparators that included methotrexate, and comparators that included DMARDs. Comparators that included methotrexate were separated into: methotrexate alone, or methotrexate with other drugs. Comparators that included DMARDs were split into: biologics alone, biologics plus methotrexate, and conventional DMARDs (no biologics). By matching on indication and time, and restricting against the European label, HTA decisions were determined to be either: Recommend, Recommend With Restrictions (RWR), Do Not Recommend (DNR), or No Decision. **RESULTS:** The sample included 77 reviews. Twenty-two reviews used methotrexate in combination with biologic drugs as comparators. Of these, 13 (59%) received a Recommend, six (27%) received RWR, and three (14%) were DNR. The frequency of the use of biologics (alone or in combination) as comparators increased each year between 2006, with 14% (1/7), and 2009, with 60% (3/5). In 2009, one (20%) of the five reviews was the first to use a biologic exclusively as a comparator, and received a decision of Recommend. In 2013, two (13%) of the 15 reviews used biologics only, and received No Decision. In 2014, all two (100%) of the reviews used biologics alone as comparators, with one receiving a decision of Recommend, and the other RWR. **CONCLUSIONS:** While the categories of comparators used in RA varied over time, the increased use of biologics in recent years illustrates a steady trend.

#### PRM135 RESPONSE RATES IN DIRECT-TO-PATIENT SURVEYS

Goolsby Hunter A, Brennen S  
Optum, Eden Prairie, MN, USA

**OBJECTIVES:** Survey response rates continue to decline across all modes of administration for public, private, and government organizations conducting survey research. This review examines response rates (RR) for direct-to-patient survey studies in health economics and outcomes research (HEOR). **METHODS:** RR was